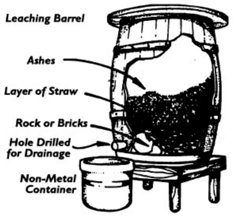
BioPharming

No. 8 DRAFT
Recycling and Upcycling
www.asmrstudio.com

SALOOP, SLOOP, SOUPS, SALUTE, SALOONS, SAFROLE AND SASSAFRAS

This Haitian Creole recipe is lost through time, so here is the North American "Original", Sassafras (a tree root) and sarsaparilla (a vine) mixed with creams and milk thistles. La Saute, from a saucepan, voila you've got French to learn. Creole is an Orleans regional cooking style, and boats from all over may have served soups, later known as Salves and Soups from the Saloon. I know, I know, it's a lotta accent. **Sassafras >>>**



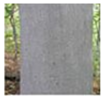
POTASSIUM HYDROXIDE (KOH) FROM HARDWOOD

Lye (alkaline) from wood ash using hot rain water (soft), although tap water works. Use hardwood ash, also known as Ash or Hickory, Sugar Maple, Beech and Buckeye) as softwoods are resinous. Dendrochronology is also more accurate with Hardwoods. Sodium Hydroxide mixed with fat, produces bar soap. Potassium Hydroxide (PotAsh) produces liquid soap. Adding sodium (ACIDIC????) hardens soap.

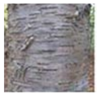
countryfarm-lifestyles.com/make-lye.html

BioDiversity @ Guelph U

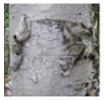
uoguelph.ca/arboretum/educationandevents/id-sheets



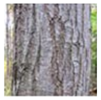
Smooth
American Beech
fagus grandifolia
Xylitol Saps



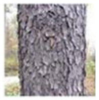
Lenticels
Yellow Birch
betula alleghaniensis
Xylitol Saps



Peels Burps
Paper Birch
betula papyrifera



Vertical
Northern Oak
quercus rubra
Rubber



Scales
Black Cherry
prunus serotina
Fruit

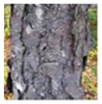
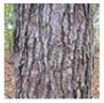
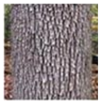


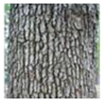
Plate Burpd
(NATURAL BLACK?)
Black Birch
betuls lents



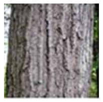
Vertical
Red Maple
Acer Rubrum
Maple Saps



Intersects
White Ash
fraxinus americana



Ridges
White Oak
quercus alba
Nuts



Ropes
North Red Oak
quercus rubra
Rubber / Nuts

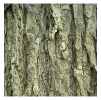


Plate Ropes
White Elm
ulmus americana
Nuts

Natural Black, yellow dye number 5, is coal tar. Rubra is a cantered pronoun. Rubber trees. Querk may be a slang term for cork. Quercetin is Middle English for yellow flavour. Papyrifera, zero papyrus. Possibly invisible ink compatible. Black Cherry superfruits contain serotonin. Smooth barks indicate trees are healthy, fruitful and phospol. Nitrogen rich trees produce ammonia downdraft (heat in the other direction), near ponds, swamp, sog and smogs. Static accumulation in trunk coulomb is expressed as cork patterns. Sap creates a geo electric capacitance gain and pressure drop. Elms and Oaks are Nut Trees. Birch Trees are Fruits Trees. Horizontal lenticels (raised pores in the stem of a woody plant). Quercetin flavonoid found at wine bottle cork bottoms. Quercetin (latin) -> kuersetin (Indonesian) and that "*could*" mean, keratan. 3,3',4'5,7-pentahydroxyflavone. Low solubility and poor bioavailability of quercetin hinders its use in the medical field. Flavonoids are "*typically*" sulfated. Keratan $C_{28}H_{48}N_2O_{32}S_4$ is a sulfate.

Quercetin Increases Hepatic Homocysteine Remethylation and Transsulfuration in Mammals Fed a Methionine-Enriched Diet

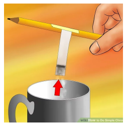
hindawi.com/journals/bmri/2015/815210/fig3/

<< "PULP" IN CYMATIC VIBRATION (Hans Jenny)

Hydro Nitrous Oxide Sound Trough? youtu.be/I4jUMWFKPTY?t=418

Hot Water Paper Chromatography >>> That will show different sized compounds in the marker's ink. Saccharose, glucose, and fructose are centrifuged from red wine.

wikihow.com/Do-Simple-Chromatography

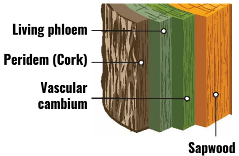


TIP TO FIGURE OUT : Stip - The Foliage on the Agent Orange that is probably an antimony.

GUM, RESIN, SAP, RUBBER : DENDROCHRONOLOGY

Latex Rubber Outer Bark
youtu.be/Z5BjX1YYIr0

Syrup Spigot
tinyurl.com/1iuc0lcn



thoughtco.com
tinyurl.com/1913xfkm

NEED TO KNOW MORE? www.asmrstudio.com Baby Boy Lipartiti

Chlorella and Anything

balconygardenweb.com : tinyurl.com/y2rb448t

broken cell wall green algae (edible or fuel source) 2 to 10 μm

Chlorella green algae contains B, C, E vitamins amino acids and nucleic acid. Dried chlorella stores 2yrs. 1. Bring clean water to boil. 2. Sterilize glass jar. 3. Seal jar ½ - ⅔ way up with mineral water, adding chlorella culture with a spoon. 5. Place near a windowsill sunny spot inside. 6. Carbon di-oxides in limestones, (BAKING SODA?) or CO2 generator tablets. 7. Harvest chlorella growth in a week. **Tainted growth causes** : too much Lye.

Plastic 1 litre Bottles

DIY BioReactor Baking Soda and Vinegar, or limestones, or CO2 tablets generate carbon dioxide. Too much limestone vitiates chlorella growth. 80 to 85 F constant temperature is essential. Use heat lamps. Use sunlight.

instructables.com : tinyurl.com/y2or7z74

Tips & Warnings :: Skim algae from the watertop with a spoon and use chlorella wet, immediately. Pour cell system "sel sish"(hindi), over a micron (μ) filter. Cheesecloth (MESH) to harvest. :: Chlorella in a blender breaks cell walls, improving nutrient bioavailability. :: Algae in nutrient dense (phosphorus and nitrogen) fertilizers, manures, septic tanks, or ponds grows better :: μ Sieve Trouff Sterile Repeat. utahbiodieselsupply.com/blog/stainless-steel-micron-rating-examples/ extension.psu.edu/pond-algae-its-not-all-bad

COLD PLANTS INTO COLD PLASTICS (FLOUR, GELS, LEAVES)

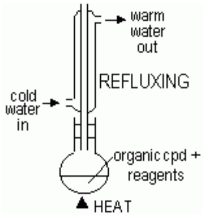
R. Nixon imported HFCS High Fructose Corn Sugar. Fermentation scheme volumizing x10 yields. 90% "*ferment*". Carbohydrates digest to hydrocarbons. Fungi, *Sungi,* are loaded with immune chemicals.

Kambucha	Gelatin based	Starch-based	High Fructose Corn Syrup
750mL hot water	240 mL cold water	50mL Water	??????????????????????
Green tea leaves	48g Gelatin	5mL Vinegar	(polylactic acids)
75mL Vinegar	12g Glycerol	5g Glycerol	Pyruvates Glycolosis
75g Sugar		6g Wheat Flour	https://polymerinnovationblog.com/

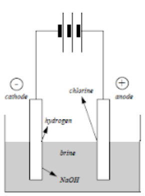
Put bioplastic mixture on molding or pour in a petri dish, spread evenly, let it dry. 2-3 days to dry at 25C. In our case, bioplastic samples incubated a week under 25C. instructables.com/Make-Your-Own-Bioplastics

Bioavailability via Kinetic Atomic Heat : Melatonin Hydrolysis

NaOH (Sodium Hydroxide), $Na_2S_2O_4$ (Sodium Dithionite), $C_4H_{10}O$ (isobutanol), EtOH (ethanol alcohol), $C_{11}H_{14}N_2O$ (mexamine). Blue light pressure (voltage) velocity (amperage) at wavelength (Λ λ) 460 to 480nm suppresses melatonin. Plants when super heated make plastics, and plants that are eaten cold, are subjected to bio absorption variances, based on evolving hereditary genetics. The following reflux hydrolysis process to the right turns plant melatonin into partially digested 42g melatonin taken up in 300g $C_4H_{10}O$. Add 30g NaOH and 3g $Na_2S_2O_4$. Reflux 2h @ 105 deg. under N_2. Cool mixture. ext with 500g water. Aqueous phase contains sodium acetate and excess NaOH-separate. Acidify isobutanol phase to pH 2 with 32% HCl. Concentrate solution to induce crystallization of 36g crude mexamine. Recrystallize from 96% EtOH to obtain 30g white crystals of $C_{11}H_{14}N_2O$ of 98.5% purity. erowid.org/archive/rhodium/chemistry/mexamine.html



thew33d.tripod.com



+90% Most industrial chlorine is produced by electrolysis. Electric current is passed through a brine solution. Electrolyte is gradually converted from sodium chloride to sodium hydroxide. Hydrogen gas is liberated at the cathode, chlorine gas at the anode.

inference.org.uk : tinyurl.com/yxgsqtrq

Carbon Chain in CarboHydrates and HydroCarbons. Cold, Pressurized, Nitrated.

Centrophenoxine (4-chlorophenoxy)acetic acid 2-(dimethylamino)ethyl ester

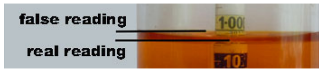
It is a metabolic regulator that influences cellular respiration and glucidic metabolism in the vegetable cell (Nandy, 1968). Centrophenoxine has been synthesized in France from dimethy laminoethanol and p-chlorophenoxyacetic acid. Discovered naturally in neem?

sciencedirect.com : tinyurl.com/y264prae

Indian Lilac (Neem)
Azadirachta Indica

123 HYDROMETER (Density / Levels / Specific Gravity)

letsfixit.co.uk : tinyurl.com/ybe5nnzv



1: Wad Soda Straw End. 2: Fill Clear Narrow Glass / Plastic Tube to 100mm water, etch line. 3: Add Straw and weigh wad (gum,clay) till straw protrusion is approx 2.5cm. 4: Add 1g (0.004 oz) approx 1tbsp salt, etch line. 5: Repeat 1g to etch lines. NOTE: Water Curved Arc Bottom is the meniscus (real reading) measuring line.

Nitrogen*[Amplitude]* Potassium*[Capacitance]* Phosphorus*[Kinase]*

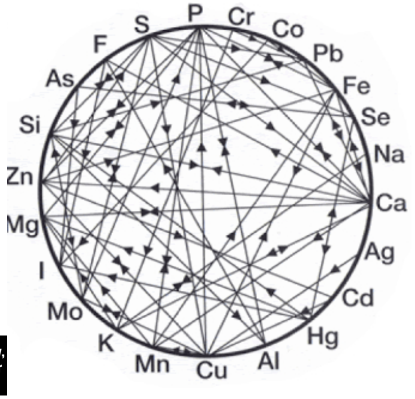
NPK

Calcium (diamagent 'ah'), magnesium (cesium "*C's*", *radio bosesium*) and sulfur. Plants also need small quantities of iron, manganese, zinc, copper, boron and molybdenum. In the fifth century P's and F's were S's making potassium a soda si kinase. Kinetics.

Saltpetre KNO_3 is potassium nitrate. Potatoes and Potash are Potassiums. Phosphates make soap bubbles. Phosphor was rediscovered in urine during the 18th century in Britain. Nitre is maybe a meter, similar to a candle illuminating a foot, a salt grain blasting a meter in length. Thermal cold (wet, glais, magnetites) convecting retention at ground root is opposing heat capacitating (dry, clear, shiny) colours in the sky.

P	Phosphorus	**Cu**	Copper
Cr	Chromium	**Mn**	Manganese
Co	Cobalt	**K**	Potassium
Pb	Lead	**Mo**	Molybdenum
Fe	Iron	**I**	Iodine
Se	Selenium	**Mg**	Magnesium
Na	Sodium	**Zn**	Zinc
Ca	Calcium	**Si**	Silica
Ag	Silver	**Ar**	Arsenic
Cd	Cadmium	**F**	Fluorine
Hg	Mercury	**S**	Sulfur
Al	Aluminium		

Arrows aimed at each other denote synergy, aimed away denote mineral interference or antagonism. criticalelements.com.au



Beehive Resonance Chamber : Termite Mound Shellac

Resonating Crystals
Yankodesign.com :
tinyurl.com/y2dlvg5g

CBD CRYSTALS
Tain Extract
cannabis.wiki

Glue Shellacs
bostonglobe.com
tinyurl.com/y5aoc9tf

DIY Geode
youtube.com
tinyurl.com/y4cyr3l4

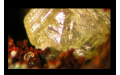
Iodyrite : Iodine Silver Ore : $ZnCu_3(OH)_6Cl_2$: Hexagonal : 3 to 3.5 mohs

Oxyhalide 3.8 specific gravity, vitreous to adamantine (Greek, iodes = "violet") and silver (Latin, argentum). Probable uses. Film. Infrared.

theodoregray.com/periodictable/Elements/047/index.s7.html

Pyrargyrite : Antimony (Stibium) : Orthorhombic : Ag_3SbS_3 : 2.5 mohs

"Ruby Silver". Epithermal veins, massive sulfides, found alongside pyrite, quartz and galena. Probable uses. Condensated SulfoSalts. theimage.com/mineral/pyrargyrite/index.htm



Iodargyrite : Hexagonal : 1.5 to 2 mohs

Australian mines. Probable uses. Colorant.

mindat.org/min-2037.html

Gabbro Serpenteine Ophiolite : $CuFe(O)S_2$: $(X)_{2\text{-}3}(Y)_2O_5(OH)_4$: 7 mohs

Green igneous (lava metamorphosed rock). This rock is silicate. Sulphur deposits scavenge hydrogen. Electrolytic? hydrothermal obduction geological process.

Basaltic

ETHANOL THERMOMETER TO MEASURE COLOR

coolcosmos.ipac.caltech.edu/cosmic_classroom/classroom_activities/herschel_example.html

Italics (<15th c.) compound "c" next small letter case "i" morphing into "a". Celcius becomes "celaus". Cielcius becomes "aleaus" (always[supp]). 50% rubbing alcohol, 50% water. Alcohol is susceptible to evaporation, polymerization potential and capillary separation. Volume expansion Coefficient $\beta(1/^{o}C)$;

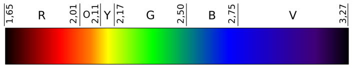
Glycerin (500×10^{-6}), Ether (1650 × 10– 6), Ethyl Alcohol (1100 × 10– 6), Mercury (180 × 10– 6)

Microwaves 1mm to 10cm Radio Waves 10 cm to 100km+

Electromagnetic Wavelength λ (Lambda) in Metric Meters

10^{-6} to 10^{-2}nm, 100pm Gamma Rays 10^{-2} to 10nm X-Ray (Roentgen)

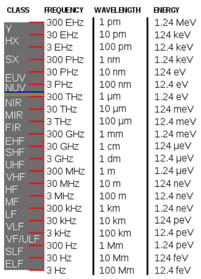
10 to 100nm UV Radiation 400 to 700nm Visible Light



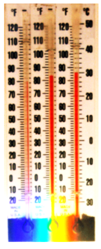
MegaHertz to (λ) wavelength in millimeters **λmm = 299792.458 / MHz**
Lumens Kelvins and Radians Watts (Lux) 10^3 nm (nano) = 1µm (micro) to 1000µm = 1mm (millionth) 1000nm (nano) = 1 µm (Micro) = .001 mm (millionth) = 1^{-4} cm (cente) = 1^{-6} cm (meter)

°Rø Rømer, °Ré, °Re, °r Réaumur, °Ra Rankine

FAR INFRARED HEIGHT **en.wikipedia.org/wiki/Electronvolt**


CLASS
γ
HX
SX
EUV
NUV
NIR
MIR
FIR
EHF
SHF
UHF
VHF
HF
MF
LF
VLF
VF/ULF
SLF
ELF

FREQUENCY	WAVELENGTH	ENERGY
300 EHz	1 pm	1.24 MeV
30 EHz	10 pm	124 keV
3 EHz	100 pm	12.4 keV
300 PHz	1 nm	1.24 keV
30 PHz	10 nm	124 eV
3 PHz	100 nm	12.4 eV
300 THz	1 µm	1.24 eV
30 THz	10 µm	124 meV
3 THz	100 µm	12.4 meV
300 GHz	1 mm	1.24 meV
30 GHz	1 cm	124 µeV
3 GHz	1 dm	12.4 µeV
300 MHz	1 m	1.24 µeV
30 MHz	10 m	124 neV
3 MHz	100 m	12.4 neV
300 kHz	1 km	1.24 neV
30 kHz	10 km	124 peV
3 kHz	100 km	12.4 peV
300 Hz	1 Mm	1.24 peV
30 Hz	10 Mm	124 feV
3 Hz	100 Mm	12.4 feV

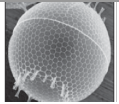


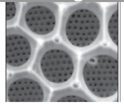
blue: 80 degrees
yellow: 83 degrees
infrared: 86 degrees

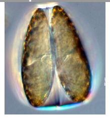
CAN I SUBSTITUTE FOR METHANOL? HOW IS THIS DIFFERENT THAN FAHRENHEIT? CELSIUS AND KELVIN?

DIATOMACEOUS EARTH : BED BUG DETERRENT : PHYTOPLANKTON : **80% O_2**

Diatomic Photo Microalgae Amorphous Silica researchgate.net : tinyurl.com/ycg68po2


(B) 5µm

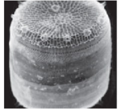

(E) 1µm

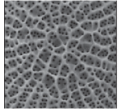


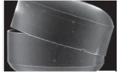
CALCIFIED DIATOMICS AND SEEDS

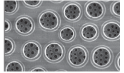
CaCO3 calcium carbonate (4% earth crust) is the most abundant biological inorganic material. The second is fossil algae. [B,E] stephanopyxis turris. Siliceous oozes. [C,F] Coscinodiscus granii Wedged cylindrical disc diameter 40 - 200 µm, height 30 - 180 µm [A,D] thalassiosira pseudonana. Phytoplankton makes 80% world oxygen, splitting carbon dioxide into two oxygen molecules. (I) 'Koroneiki', 'Kalamata' and 'Mastoidis' pollen grains. researchgate.net tinyurl.com/y52donhk

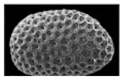
eoas.ubc.ca/research/phytoplankton/diatoms/centric/coscinodiscus/c_granii.html

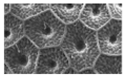

(A) 10µm

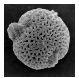

(D) 1.5µm


(C) 70µm


(F) 11µm


(G) 800µm


(H) 250µm


(I) 13µm

FRENCH	LATIN	ENGLISH	SPANISH	DANISH	DUTCH	IRISH	THAI	KOREAN	ITALIAN	JAPANESE	GALICIAN
JAUNE	CROCUS	YELLOW	AZAFRÁN	GUL	GEEL	YELLOW	Cæn	sapeulan	giallo		xeel
JAUNES	flavorum	yellow	AMARILLO	smag	smaak	blas	Jaun		giallo		amarelo
JEUNE	IUVENIS	YOUNG	JOVEN	UNG	JONG	ÓG	Cū nè		GIOVANE	Jūn	MOZO
JEUNES	ADULESCENS	GROWING	JUVENTUD	UNGDOM	JEUGD	ÓIGE	Cen nex ŕ		Jenner	Jen'nā	XUVENTUDE

SAAZ HOPS (CZECH)

ANCIENT AMARILLO AND MEGAFAUNA PINECONES

Saaz hops (Žatec) with sassafras shape leaf and liberty mint style leaf hop rediscovered in 1990. learn.kegerator.com/amarillo-hops/
(HINT: SAYS MAY BE VOICE↔SAUCE, AND SEROTONOLOGIC)

Hippeastrum is a genus in the family Amaryllidaceae

Midaevil type font **"s"** formed ***"f"***, and that has big implications when translating ancient words to find ancient recipes. Did the Falso go in Salso?
Hippophae rhamnoides Sea Buckthorn
Bixa orellana

Licorice (Monocot)

CONVERSATIONS D'ERNESTINE, A L'USAGE DES JEUNES DEMOISELLES

By Marie Antoinette LENOIR 1809 **books.google.ca/books?id=wipcAAAAcAAJ**

ERNESTINE. Il y a , ma chère amie, én "Amériqué, une espèce de serpent qui se nourrit d'écureuils. Lorsqu'ils en voient un sur un arbre, ils se cou chent au pied, et fixent les yeux sur lui.? Le petit animal pousse un cri plaintif, et sautë-sur une branche au-dessus de celle où il se trouve descend ensuite par un autre saut plus basqu'il re L 3 114 n'était d'abord, et ainsi successivement jusqu'aux branches les plus voisines de la terre, desquelles il se précipite avec un cri de douleur sur le serpent, qui n'a cessé de le fixer, et qui tient la gueule ouverte pour l'engloutir.

Kava Kava

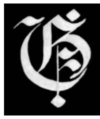
PHYTOMINING Dr van der Ent metalworkingworldmagazine.com : tinyurl.com/y8sdtq6a

Radio, electrics, and magnetism are captured in patterns. Wrought iron artifacts root colorful tree blooms. Cobalt spills giving foliage radio absorbent parallel venation (monocots). Dicotyledons have reticulate venation from basalts. (my supposition). "*A mature nickel hyperaccumulator tree can contain up to five kg of nickel metal when grown in the right conditions.*" Don't tell your mother how to eat fried worms!

Tree, Blossoms and Root Oil Extracts Ensuring the tree survives, dig out roots, shave bark or separate blossoms. Simmer for 4 to 6 hours, in a water pot 1 inch. Cool overnight. Skim oils, leaving broths, warm lightly in a new pot, and strain through cheesecloth.

leaf.tv : tinyurl.com/y3uk3gmq

Dandelion



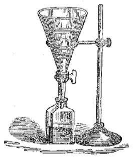
ILLUMINATED TYPE AND THE "CBGB's" RULE

A drop cap (dropped capital) during typographic copies from old books t new papers was required in history when printing presses were not available. The G's and B's were sometimes interpreted as C's.

SAPONIN AND GLYCEROLS Make glycerin $C_3H_8O_3$ by heating triglyceride-rich vegetable fats — palm $C_{16}H_{32}O_2$, soy $C_{11}H_9N_3O_2.Na$ and coconut oils — under pressure or together w/ lye alkali. Glycerin splits away from fatty acid mixing into glistening watery, odorless, sweet, syrupy, liquid.

healthline.com/nutrition/vegetable-glycerin

Raw maple sap is sediment filtered and boiled into syrup. All color grades (gradients) show free amino nitrogen in syrup unbiasedly equal. H-ORAC hydrophilic oxygen radical absorbance capacity dark brown pigments (melanoidins) by condensed amines being more sugary (fructose and glucose) and shows more antioxidant activity over light toned syrups. **jstage.jst.go.jp/article/fstr/21/3/21_495/_html**


Tap Funnel Separates Ottos from Water, Spirits from Oil
books.google.ca/books?id=szCdfz6nYTgC
The Art of Perfumery : 1857
Silt settles and that rhymes with silks, and window sills. Nitrogen and Ammonia control oxygen resonations. Will a rubber pressure cup change control?
How is distillation different?

Acetic acid is the 2nd simplest carboxylic acid CH_3COOH after formic acid HCOOH

LUSTER, LUMINANCE, ALUM AND ALUMINIUM

Ance begins and ence ends be. Petroleum is petrified luminance. Alum fluorescence is the slower essence. Sluoressenge. Luster inconsistent morning through night. Luminance is probably refracted or diffracted light. LOOK UP SCHITZOPHRENIA IN ARCH\ePELAGO!

889 pg ALLIED SCIENCES

books.google.ca/books?id=1cQOAQAAMAAJ

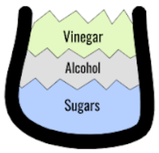
Cold pressed squeeze oil from nuts and seeds. The fibre remaining is oil residue cake.

Oleometer *(o - le -om '-et -er)*

[oleum , oil ; uétpov , measure]. An instrument for ascertaining the weight and purity of oil.

Possibly buoyant force hydrometer to determine the density of oils.

Cake	Water %	Fat %	Woody Fibre NON-NITROGEN	Ash %	Proteid %	Nitrogen %
Earth Nut	11.50	8.80	31.10	7.25	41.35	6.80
Cotton Seed	13.00	7.50	51.00	8.50	20.00	2.90
Rape Oil	10.12	9.23	41.93	6.48	31.88	5.00
Colza Oil	11.35	9.00	42.82	6.28	30.55	4.50
Sesame	10.35	10.10	38.80	9.80	31.93	5.00
Beech	11.40	8.50	49.80	5.30	24.00	3.20
Linseed	10.56	9.83	44.61	6.50	28.50	4.25
Camelina	9.60	9.20	50.90	7.00	23.30	3.60
Poppy Oil	9.50	8.90	37.67	11.43	32.50	5.00
Sunflower-oil	10.20	8.50	48.90	11.40	21.00	2.40
Hempseed	10.00	8.26	48.00	12.24	21.50	3.30
Palm-nut	9.50	8.43	40.95	10.62	30.40	4.50
Cocoa-nut	10.00	9.20	40.50	10.50	30.00	4.50



Vinegar 4% to 59% Acetic Acid You need containers, the vinegar (+/- 5% to start), and freezer thermometer. Freeze to -4°C. The unfrozen liquid will be about 29% acetic acid. For best results repeat going 2° colder each time until you hit -18°C where you'll be around 59% acid. Bitartrate salts condense on the container. **quora.com : tinyurl.com/yybnuk9q**

Natural Galena Minerals From Freezing and Refreezing

Ancient wells were coveted for thier natural healing properties. Lithium in earth's crust (0.0017%) is one mineral. Galena is silver ore salt crystal. Place ore in the freezer, thaw, refreeze as necessary. Salt crystals will form at bottom.

DIY PHOTOGRAPHS FROM PAPER AND HOUSEHOLD FOOD ITEMS

"Coffee granules, vitamin c power/tablets & washing soda for the dev (aka caffenol) and table salt for the fix," says Barry. "Process photo paper exposed in a camera obscura, a pinhole camera or any camera you can put a bit of photo paper in. [And] the same stuff works for film." Black & white and color photographic paper will both work. The color develops in sepia. petapixel.com : tinyurl.com/yyyfjkdt

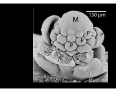
HOW TO MAKE BLUEPRINT PAPER Anne Marie Ph.D. thoughtco.com/how-to-make-blueprint-paper-606176

Sulphur deficiency in Yellow Tea, leaves Green Tea a preferable choice for hydrogen radical scavenging. Ester sulphate has higher bioavailability than carbon bonded sulphurs. **repository.up.ac.za/bitstream/handle/2263/8154/Rao_2001.pdf**

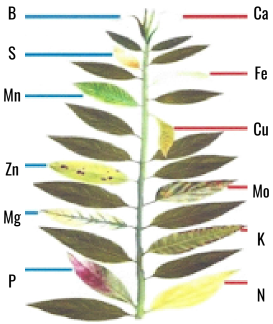
ANNUAL PERENNIAL BIENNIAL PLANT STEM CELLS

White root is a grass-like plant with long horizontal rhizomes. Most biennials, including carrots, beets, turnips, and celery need protection. sepals, petals, stamens, and pistils. Stomates, cambium. britannica.com/plant/dicotyledon

! (Haeckel, 1868) Stem Cells in Plant Meristems. Shoot tips under a microscope mark .
science.smith.edu/phyllo/About/microscope.html



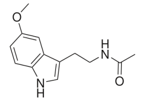
æ NUTRIENT DEFICIENCY CHART

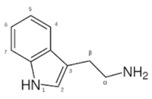


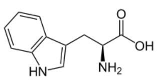
Boron : Leaves die and fall early, stunted growth, flowers and seeds usually do not produce
Calcium : Leaves roll and curl, roots gelatinous
Copper : Terminal shoots wilt and die leaves appear faded
Iron : White marks show in the veins leaves look bleached tips leaves look scorched
Magnesium : Veins look green, leaf tissue looks white or yellow and brittle leaves may wilt fall or die
Manganese : Same as magnesium but stems are yellow-green in color and often hard to the touch
Molybdenum : Leaves are light yellow and may not grow
Nitrogen : Stunted growth, leaves sometimes look purplish, stems are thin
Phosphorus : Stunted growth, leaves sometimes look purplish, stems are thin
Potassium : Leaves have pale green or streaked yellow color and look wrinkled between the veins
Sulphur : Leaves appear light green to yellow, stems are thin
Zinc : Leaves die, white streaks show between the veins in older leaves.

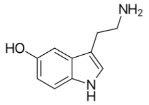
Plant vs Neuro Chems Comparison

Tryptophan **(Animals)**	Tryptophan **(Plants)**
↓ **Tryptophan hydroxylase**	↓ **Tryptophan decarboxylase**
5-Hydroxytryptophan	Tryptamine
↓ **5-Hydroxytryptophan decarboxylase**	↓ **Tryptamine hydroxylase**
5-Hydroxytryptamine (Serotonin)	5-Hydroxytryptamine (Serotonin)
↓ **N-Acetyltransferase**	↓ **N-Acetyltransferase**
N-Acetylserotonin	N-Acetylserotonin
↓ **N-Acetylserotonin Methyltransferase**	↓ **N-Acetylserotonin Methyltransferase**
Melatonin	Melatonin


Melatonin (NeuroRepair)
$C_{13}H_{16}N_2O_2$

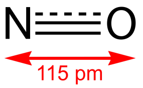

Tryptamine (Accelerant)
$C_{10}H_{12}N_2$


Tryptophan (Metabolite)
$C_{11}H_{12}N_2O_2$


Serotonin (Amplifier)
$C_{10}H_{12}N_2O$

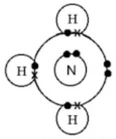
Diphylleia Grayi

Tryptophan in animals and plants. The first two steps in the melatonin synthesis pathway, i.e. hydroxylation and decarboxylation, are reversed in plants relative to animals. **researchgate.net tinyurl.com/4khvy7uk**



WHAT ARE THESE TRIPPLE BONDS?

Nitrogen blasts down. Potassium has a high affinity to Oxygen. It also produces ammonia during morning frosts. Oxygen is symbolized O as an Ohm diametric providing nitrogenic hysteresis.



Corkscrew Shark Eggs? Could it be
en.wikipedia.org/wiki/Nitric_oxide

<table>
<tr><th rowspan="2">AMINO ACIDS</th><th colspan="3">pKa (Potential Potassium Anode)</th><th>Researchgate.net : tinyurl.com/2fvk3m33</th></tr>
<tr><th>α-carboxylic acid</th><th>α-amino</th><th>α-side chain</th><th>Isoelectric point</th></tr>
<tr><td>L-arginine</td><td>2.01</td><td>9.04</td><td>12.48</td><td>10.76</td></tr>
<tr><td>L-glutamic</td><td>2.10</td><td>9.47</td><td>4.07</td><td>3.22</td></tr>
<tr><td>L-histidine</td><td>1.82</td><td>9.17</td><td>6</td><td>7.59</td></tr>
<tr><td>L-cysteine</td><td>1.96</td><td>10.2</td><td>8.15</td><td>5.07</td></tr>
</table>

Researchgate.net : tinyurl.com/2fvk3m33